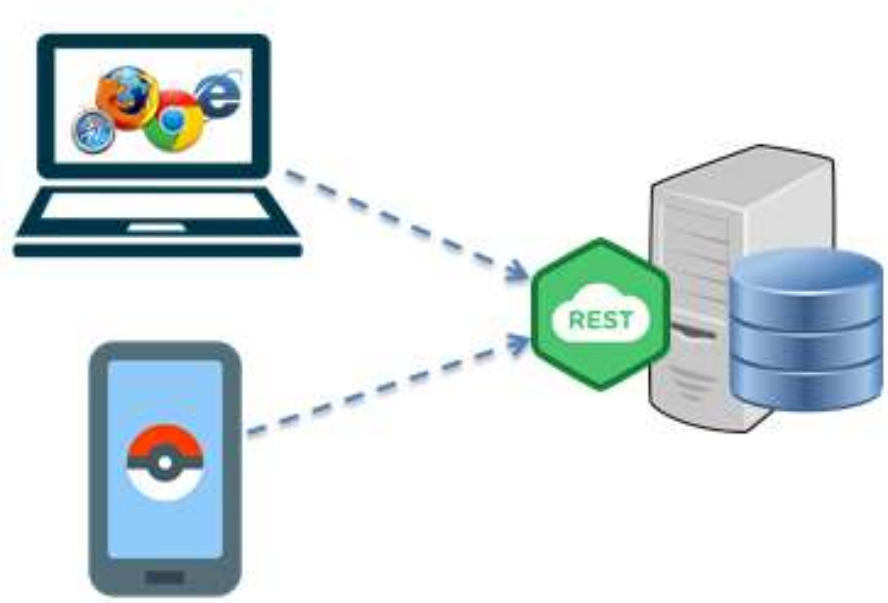
CA 3

2 Clients - 1 server:

React + React Native with a REST Backend



Content of this document

About CA-3 and the Semester Project

The Semester Project is the project that ties together the two main topics this semester.

- Programming (what we have done up until now, if you are in doubt ;-)
- System Development (a 3 week period starting November 6th. This topic has its own exam based on a report on theory and praxis during the semester project)

For the programming part, the third CA and the Semester Project are tied together. Here follows an open-ended case description:

Case:

A company that rent out Holiday homes has decided to create a Web/Mobile app for a system, that allows users to upload information about *Interesting Places* complete with images, address, description, rating etc.)

This project is in a feasibility test phase and as such the requirements are not fixed yet. In week-45 when the system development module starts, you will get a "real" product owner with new or additional ideas, So don't just race ahead with programming lots of details. It could be "wasted" time.

Before the company can make the decision as to whether this is realistic, it must make some initial "proof of concept" experiments to remove technological risk and provide a better background for the coming task estimations. **This is the purpose of CA-3.** So we do not expect any finished products ready to launch, but rather bits and pieces of working code fragments representing the perceived areas of risk.

Semester Project - Initial thoughts/ideas/requirements:

A Web/Mobile app, for a system with information about interesting places and their ratings (image, address,description, rating).

The WEB-app (Done with react)

- *All users can see existing places and their ratings. Search for specific locations, filter/sort in list of locations etc.)*
- *New users can register*
- *Registered users can add new places (image(s), address, description, rating)*
- *Admins can see (add/edit/remove) all users*
- *Registered users can rate (preferably only once) existing locations*
- *See/reserve available Holiday Homes (from this company) near a location*

The Mobile-app (React-native)

- *All users can see existing places and their ratings. Search for specific locations, filter/sort in list of locations*
- *Users can add new places (image, **GPS-location**, address, description, rating)*

Holiday Home System

This is the part of the app where users can rent a holliday home:

- *Initially this system should only handle weekly rentals given by a week-number*
- *Include a way to add houses/available periods*
- *Ability to search for and rent via a REST API from: 1) the Web-client, 2) the App-client*
- *Must have a "fixed" JSON/REST interface that will allow other apps to use/reserve houses through the Rest endpoints*

CA-3: Proof of Concept - Investigation for the Semester Project

The main task for CA-3, is to complete a number of "smaller" tasks to provide the necessary technological experience with problems related to the Semester Project.

What to do, and how to spend your four days:

You will have to complete this part in two mini-sprints as suggested below.

Sprint-1 (Monday to wednesday)

Create a (very initial version) of a "Interesting Places" backend with a matching WEB-frontend (we suggest you use the two semester seeds for frontend and backend). The initial program should demonstrate the following ideas":

- Let new users Register
- Let Admins see all system users, and possibly delete and add/edit users and their roles
- Let all (non-authenticated) users see info about "places". Information, should as a minimum include:
    - Address (city, zip, street) (just keep in one Class/Table, no need to normalize)
    - Gps-location (make it nullable, only meant for uploads via an App)
    - A description of the place and why it´s amazing.
    - A rating on the experience from 1-5.
    - A uri to an image

  Hint: for this mini-sprint, just set up some fixed test data in the database
- Add capabilities to search, filter and sort the data.

Sprint-2 (Thursday to saturday)

Backend:

- Add capability via the Rest endpoints to upload images and other information

Web:

- Registered users must be able to create new locations with picture, address, description
- Registered users can rate a location (yellow/red) (only once per location)

App: Implement as many as you have time for (but minimum one)

- View a list of existing locations
- Search/filter/sort the existing locations

- Upload new location with gps-location and description (it's OK to provide a non-protected Rest endpoint for this)
- Upload new location with gps-location,(yellow/red) **image**, and description (it's OK to provide a non-protected endpoint for this)

What to hand in

By the end of the 2 sprints we expect the following:

Your WEB-site must include (a non-protected) link to a view with the following 4 sections:

- A section with a list summing up the features implemented on:
    - The Backend
    - The Web-client
    - The App-client

- A section with a link to download the App-client (the Expo-link you got when you published your app)

- A section with a description of how far you think you can go with this semester project. Make this with user stories and classify them with initial priorities, time estimates and whether each one is likely to be made by your team in the 3 weekly sprints of the semester project phase (try to come up with a "realistic" estimate).

- A section with "who did what" for the CA

When to hand in

Sprint-1
Deploy this solution and send a mail, no later than Wednesday 20.00 to iwantstudypoints@gmail.com with the class name + full name of all members in the team and a link to the hosted front-end and your github repository including a readme.md with a short description of how far you have come with the project.

Sprint-2
Complete the documentation (see what to hand-in), and deploy all three parts (backend, frontend and App)

Send a mail to iwantstudypoints@gmail.com, with the class + full name of all members in the team + the following links:

- Link to the groups github repository
- Link to the (hosted) web-frontend
- Link to the your deployed (on Expo) App-client

Include a short manual (in the mail) explaining "how to use your system"

Deadline: November 5th. 20.00

Study points for this flow

You can earn a maximum of 40 study points in this period.

Activity	**Study Points**
For your participation in the class (one for each day)	11 points
For the two Friday Study Point Exercises	Up to 10 points
Each member in a group can earn additional 19 points for CA-2 as sketched below:	
For attending the Semester Project/CA-3 startup monday	4
For your contribution to the code and documentation VERIFIED via GIT commits + the “Who did What Section”	Up to 5 points
For your hand-ind (Wednesday).	Up to 5 points
For the overall impression of how far you came and what you have done (will respect the general skills in your group (green, yellow, red)	Up to 5 points